Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Unit 6 Study Guide DUE: Wednesday, April 26**

**Test on: Thursday April 27**

**Complete on a separate sheet of paper**

**Lesson 1 and 2: Ratios and Ratio Word Problems**

1. The ratio of sparrows to bluejays at the bird house was 5 to 3. If there were 15 bluejays in the house, how many sparrows were there?

2. The bicycle store has mountain bikes and racing bikes on the showroom floor at a ratio of 3 to 5. If there are a total of 72 bikes on the floor, how can you find the number of racing bikes?

3. The Recycling club collects cans and bottles for recycling. The ratio of cans to bottles collected was

8 to 9. If they collected 240 cans, how many items to be recycled did they collect in all?

4. The ratio of big fish to little fish in the pond was 4 to 11. If there were 1320 fish in the pond, how many big fish were there?

**Lesson 3: Rates and Rate Word Problems**

5. What is the price per ounce of a 24-ounce box of cereal priced at $3.60?

6. The price of one type of cheese is $2.60 a pound. What is the cost of 2 pounds of cheese?

7. Arnold drove 390 miles from LA to Sacramento in 6 hours. If he continued at that rate, how long would it take him to 715 miles? Answer in hours.

**Lesson 4: Proportions**

8. Tell whether they are proportional; How do you know?

3 = 9 13 = 4 8 = 14

4 12 15 5 12 21

9. Solve each proportion. When necessary, round to the nearest tenth.

a. 3 = 15 b. 36 = 4 c. 77 = x

5 x H 20 91 24

10. You estimate that you can do 12 math problems in 45 minutes. How long should it take you to do 20 math problems?

**Lesson 5: Percents and Proportions**

11. Write as a percent

a. 0.16 b. 31/40  c. 3.04 d. 41/13 e. 0.8

12. Write each percent as a decimal and fraction

a. 8% b. 145% c. 70% d. 12%

13. 17 out of 25 students are present. What percent of students are present?

14. 45% of applications are incomplete. If there were 60 applications, how many were incomplete?

15. 30% of the students, or 42 students, are girls. How many students are there?

16. 494 dogs, or 38% of the number observed, are afraid of squirrels. How many dogs were observed?

17. Sally gets a 65% discount on all products in her store. If she wants to buy a dress that costs $180, how much money will she save with her discount?

18. 39 is what percent of 50?

19. Sally and Andrew go out to dinner for $42. If they want to leave a 15% tip, how much money will they leave for tip?

20. A company sells a sweater for $50. If it is put on sale for 25%, what is the sale price?